

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application. Please cancel claims 2-5, 7-8, 39 and 50-51 without prejudice and amend claims 9-11, 13-15 and 29-38 as follows:

LISTING OF CLAIMS:

1. (Previously Presented) A photomask at least comprising:
a transparent substrate;
a hollow section formed on a main surface of said transparent substrate;
a shade pattern formed in said hollow section; and
a reflection preventing film formed on a back or surface of said shade pattern,
wherein the surface of said shade pattern is planarized by a chemical and mechanical
polishing thereon.

2. (Canceled)
3. (Canceled)
4. (Canceled)
5. (Canceled)
6. (Canceled)
7. (Canceled)
8. (Canceled)

9. (Currently Amended) A photomask comprising:

a transparent substrate;

a shade pattern formed selectively on a main surface of said transparent substrate;

and

a phase shift pattern selectively formed on said shade pattern and said transparent substrate,

wherein said phase shift pattern has a surface planarized to a degree obtained by a chemical and mechanical polishing according to claim 2, wherein said phase shift pattern includes a phase shift pattern formed every other opening on the photomask.

10. (Currently Amended) A photomask comprising:

a transparent substrate;

a shade pattern formed selectively on a main surface of said transparent substrate;

and

a phase shift pattern selectively formed on said shade pattern and said transparent substrate,

wherein said phase shift pattern has a surface planarized to a degree obtained by a chemical and mechanical polishing according to claim 2, wherein said phase shift pattern includes a phase shift pattern having ~~[[a]]~~ an auxiliary opening with a shifter which is not resolved adjacent to a main opening.

11. (Currently Amended) A photomask comprising:

a transparent substrate;

a shade pattern formed selectively on a main surface of said transparent substrate;

and

a phase shift pattern selectively formed on said shade pattern and said transparent substrate,

wherein said phase shift pattern has a surface planarized to a degree obtained by a chemical and mechanical polishing according to claim 2, wherein said phase shift pattern includes a phase shift pattern formed at an edge of a main opening.

12. (Canceled)

13. (Currently Amended) A photomask comprising:

a transparent substrate;

a shade pattern formed selectively on a main surface of said transparent substrate;

and

a phase shift pattern selectively formed on said shade pattern and said transparent substrate,

wherein said phase shift pattern has a surface planarized to a degree obtained by a chemical and mechanical polishing according to claim 2, further including a halftone phase shift pattern with a shade pattern.

14. (Currently Amended) A photomask comprising:
a transparent substrate;
a shade pattern formed selectively on a main surface of said transparent substrate;
and
a phase shift pattern selectively formed on said shade pattern and said transparent
substrate,
wherein said phase shift pattern has a surface planarized to a degree obtained by a
chemical and mechanical polishing according to claim 2, wherein said phase shift pattern
has a shade pattern formed with a phase shifter.

15. (Currently Amended) A photomask comprising:
a transparent substrate;
a shade pattern formed selectively on a main surface of said transparent substrate;
and
a phase shift pattern selectively formed on said shade pattern and said transparent
substrate,
wherein said phase shift pattern has a surface planarized to a degree obtained by a
chemical and mechanical polishing according to claim 2, further including an intermediate
type phase shift pattern.

16. (Previously Presented) A photomask fabrication method at least comprising the steps of:

- forming a resist on a transparent substrate;
- forming a pattern by selectively exposing and developing said resist by using a radiation ray;
- selectively etching said transparent substrate by using said resist as a mask;
- eliminating said resist;
- forming a first reflection preventing film on said transparent substrate which is selectively etched;
- forming a shade film on said first reflection preventing film;
- performing a chemical and mechanical polishing for said shade film; and
- forming a second reflection preventing film.

17. (Previously Presented) A photomask fabrication method at least comprising the steps of:

- forming a resist on a shade film on a transparent substrate;
- forming a pattern by selectively exposing and developing said resist by using a radiation ray;
- selectively etching said shade film using said resist as a mask;
- eliminating said resist;
- forming a phase shift film on said shade film which is selectively etched;

selectively etching said phase shift film; and
performing a chemical and mechanical polishing after selectively etching of said
phase shift film.

18. (Previously Presented) A photomask fabrication method according to claim
17, after the step of forming said phase shift pattern, further comprises the step of:
performing a chemical and mechanical polishing.

19. (Previously Presented) A photomask fabrication method according to claim
17, after the step of eliminating said resist, further comprises the steps of:
forming a second resist film on said shade film which is selectively etched;
selectively etching said second resist film to form a second resist pattern;
selectively etching said transparent substrate by using said second resist pattern as a
mask;
eliminating said second resist pattern; and
performing said chemical and mechanical polishing.

20. (Previously Presented) A photomask fabrication method at least comprising
the steps of:
forming a resist on a transparent substrate;

forming a pattern by selectively exposing and developing said resist by using a radiation ray;

selectively etching said transparent substrate by using said resist as a mask;

eliminating said resist;

forming a shade film on said transparent substrate which is selectively etched;

performing a chemical and mechanical polishing for said shade film;

forming a phase shift film on said shade film;

selectively etching said phase shift film; and

performing a chemical and mechanical polishing.

21. (Canceled)

22. (Canceled)

23. (Previously Presented) A photomask fabrication method at least comprising the steps of:

forming a resist on a transparent substrate;

forming a pattern by selectively exposing and developing said resist by using a radiation ray;

selectively etching said transparent substrate by using said resist as a mask;

eliminating said resist;

forming a shade film on said transparent substrate which is selectively etched;

performing a chemical and mechanical polishing for said shade film;
forming a resist film on said shade film;
selectively etching said resist film;
selectively etching said transparent substrate; and
performing said chemical and mechanical polishing for a phase shift pattern formed
by selectively etching said transparent substrate.

24. (Original) A photomask fabrication method according to claim 16, wherein one of an electron beam, a laser beam, and a monochromatic beam is used as said radiation ray.

25. (Withdrawn) A fabrication method of semiconductor integrated circuits such as a liquid crystal display, wherein said photomask according to claim 1 is used.

26. (Withdrawn) A fabrication method of semiconductor integrated circuits such as a liquid crystal display, wherein said photomask fabrication method according to claim 16 is included.

27. (Canceled)

28. (Canceled)

29. (Currently Amended) A photomask comprising:

a transparent substrate;

a shade pattern formed selectively on a main surface of said transparent substrate;

and

a phase shift pattern selectively formed on said shade pattern and said transparent substrate,

wherein said phase shift pattern has a surface planarized to a degree obtained by a chemical and mechanical polishing, wherein an end section of said phase shift pattern that is contacted to said transparent substrate has a sloped shape that gradually decreases, the sloped shape formed by chemical and mechanical polishing and according to claim 3,
wherein said phase shift pattern includes a phase shift pattern formed every other opening on the photomask.

30. (Currently Amended) A photomask comprising:

a transparent substrate;

a shade pattern formed selectively on a main surface of said transparent substrate;

and

a phase shift pattern selectively formed on said shade pattern and said transparent substrate,

wherein said phase shift pattern has a surface planarized to a degree obtained by a chemical and mechanical polishing, wherein a difference of a step, between said phase shift

pattern and said transparent substrate at said end section of said phase shift pattern that is contacted to said transparent substrate, gradually decreases, the gradual decrease formed by chemical and mechanical polishing and according to claim 4, wherein said phase shift pattern includes a phase shift pattern formed every other opening on the photomask.

31. (Currently Amended) [[The]] A method of fabricating a photomask comprising the steps of:

forming a hollow section on a main surface of a transparent substrate;

forming a shade pattern in said hollow section;

selectively forming a phase shift pattern on said transparent substrate and said shade pattern; and

forming, by chemical and mechanical polishing, a slope shape on a surface of said phase shift pattern so that a thickness of a portion of said phase shift pattern in contact with said transparent substrate gradually decreases according to claim 5, wherein said phase shift pattern includes a phase shift pattern formed every other opening on the photomask.

32. (Currently Amended) [[The]] A method of fabricating a photomask comprising the steps of:

forming a hollow section on a main surface of a transparent substrate;

forming a shade pattern in said hollow section, said shade pattern having a surface which is not in contact with said transparent substrate and forming a same plane together with the main surface of the transparent substrate; and

selectively etching said main surface of said transparent substrate to form a phase shift pattern after forming said shade pattern according to claim 7, wherein said phase shift pattern includes a phase shift pattern formed every other opening on the photomask .

33. (Currently Amended) A method of fabricating a photomask comprising the steps of:

forming a hollow section on a main surface of a transparent substrate;

forming a shade pattern in said hollow section, said shade pattern having a surface which is not in contact with said transparent substrate and forming a same plane together with the main surface of the transparent substrate;

selectively etching said main surface of said transparent substrate to form a phase shift pattern after forming said shade pattern;

forming an end section of said phase shift pattern that is in contact with said transparent substrate to have a sloped shape that gradually decreases; and according to claim 8, wherein

forming said phase shift pattern includes to include a phase shift pattern formed every other opening on the photomask.

34. (Currently Amended) A photomask comprising:

a transparent substrate;

a shade pattern formed selectively on a main surface of said transparent substrate;

and

a phase shift pattern selectively formed on said shade pattern and said transparent substrate.

wherein said phase shift pattern has a surface planarized to a degree obtained by a chemical and mechanical polishing, wherein an end section of said phase shift pattern that is contacted to said transparent substrate has a sloped shape that gradually decreases, the sloped shape formed by chemical and mechanical polishing and according to claim 3,
wherein said phase shift pattern includes a phase shift pattern having an auxiliary opening with a shifter which is not resolved adjacent to a main opening.

35. (Currently Amended) A photomask comprising:

a transparent substrate;

a shade pattern formed selectively on a main surface of said transparent substrate;

and

a phase shift pattern selectively formed on said shade pattern and said transparent substrate.

wherein said phase shift pattern has a surface planarized to a degree obtained by a chemical and mechanical polishing, wherein a difference of a step, between said phase shift

pattern and said transparent substrate at said end section of said phase shift pattern that is contacted to said transparent substrate, gradually decreases, the gradual decrease formed by chemical and mechanical polishing and ~~according to claim 4~~, wherein said phase shift pattern includes a phase shift pattern having an auxiliary opening with a shifter which is not resolved adjacent to a main opening.

36. (Currently Amended) [[The]] A method of fabricating a photomask comprising the steps of:

forming a hollow section on a main surface of a transparent substrate;

forming a shade pattern in said hollow section;

selectively forming a phase shift pattern on said transparent substrate and said shade pattern; and

forming, by chemical and mechanical polishing, a slope shape on a surface of said phase shift pattern so that a thickness of a portion of said phase shift pattern in contact with said transparent substrate gradually decreases ~~according to claim 5~~, wherein said phase shift pattern includes a phase shift pattern having an auxiliary opening with a shifter which is not resolved adjacent to a main opening.

37. (Currently Amended) [[The]] A method of fabricating a photomask comprising the steps of:

forming a hollow section on a main surface of a transparent substrate;

forming a shade pattern in said hollow section, said shade pattern having a surface which is not in contact with said transparent substrate and forming a same plane together with the main surface of the transparent substrate; and

selectively etching said main surface of said transparent substrate to form a phase shift pattern after forming said shade pattern ~~according to claim 7~~, wherein said phase shift pattern includes a phase shift pattern having an auxiliary opening with a shifter which is not resolved adjacent to a main opening.

38. (Currently Amended) A method of fabricating a photomask comprising the steps of:

forming a hollow section on a main surface of a transparent substrate;

forming a shade pattern in said hollow section, said shade pattern having a surface which is not in contact with said transparent substrate and forming a same plane together with the main surface of the transparent substrate;

selectively etching said main surface of said transparent substrate to form a phase shift pattern after forming said shade pattern;

forming an end section of said phase shift pattern that is in contact with said transparent substrate to have a sloped shape that gradually decreases; and ~~according to claim 8, wherein~~

forming wherein said phase shift pattern ~~includes~~ to include a phase shift pattern having an auxiliary opening with a shifter which is not resolved adjacent to a main opening.

39. (Canceled)

40. (Canceled)

41. (Previously Presented) A photomask comprising:

a transparent substrate;

a hollow section formed on a main surface of said transparent substrate;

a shade pattern formed in said hollow section;

a phase shift pattern formed by selectively etching said transparent substrate; and

a halftone phase shift pattern with a shade pattern.

42. (Previously Presented) A photomask comprising:

a transparent substrate;

a hollow section formed on a main surface of said transparent substrate;

a shade pattern formed in said hollow section; and

a phase shift pattern formed by selectively etching said transparent substrate, and

having a shade pattern formed with a phase shifter.

43. (Previously Presented) A photomask comprising:

a transparent substrate;

a hollow section formed on a main surface of said transparent substrate;

a shade pattern formed in said hollow section;

a phase shift pattern formed by selectively etching said transparent substrate; and

an intermediate type phase shift pattern.

44. (Previously Presented) A photomask fabrication method according to claim 17, wherein one of an electron beam, a laser beam, and a monochromatic beam is used as said radiation ray.

45. (Previously Presented) A photomask fabrication method according to claim 18, wherein one of an electron beam, a laser beam, and a monochromatic beam is used as said radiation ray.

46. (Previously Presented) A photomask fabrication method according to claim 19, wherein one of an electron beam, a laser beam, and a monochromatic beam is used as said radiation ray.

47. (Previously Presented) A photomask fabrication method according to claim 20, wherein one of an electron beam, a laser beam, and a monochromatic beam is used as said radiation ray.

48. (Canceled)

49. (Previously Presented) A photomask fabrication method according to claim 23, wherein one of an electron beam, a laser beam, and a monochromatic beam is used as said radiation ray.

50. (Canceled)

51. (Canceled)